609 West Rock Road, Radford, VA 24141
540-633-5000 / (fax) 540-731-3712

RECOMMENDED ATTACHMENTS & CONNECTION DETAILS
INDEX OF DRAWINGS

SECTION A:
   A-1 = METAL TRACK TO PANEL ATTACHMENT
   A-2 = WOOD PLATE TO PANEL ATTACHMENT

SECTION B:
   B-1 = METAL TRACK TO SLAB WITH ANCHOR PINS
   B-2 = METAL TRACK TO SLAB WITH ANCHOR BOLTS
   B-3 = WOOD PLATE TO SLAB WITH ANCHOR BOLTS
   B-4 = METAL TRACK TO WOOD FLOOR SYSTEM ATTACHMENT
   B-5 = METAL TRACK TO WOOD FLOOR SYSTEM ATTACHMENT (PREFERRED)
   B-6 = WOOD PLATE TO WOOD FLOOR SYSTEM ATTACHMENT
   B-7 = WOOD PLATE TO WOOD FLOOR SYSTEM ATTACHMENT (PREFERRED)
   B-8 = MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH METAL TRACK ATTACHMENT
   B-9 = MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH METAL TRACK ATTACHMENT
           (PREFERRED)
   B-10 = MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH WOOD PLATE ATTACHMENT
   B-11 = MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH WOOD PLATE ATTACHMENT
           (PREFERRED)

SECTION C:
   C-1 = ROOF PANEL TO BEVELED WALL PANEL (METAL TRACK)
   C-2 = ROOF PANEL TO WALL PANEL WITH METAL TRACK AND SOLID BLOCKING
   C-3 = ROOF PANEL TO WALL PANEL WITH WOOD PLATE AND SOLID BLOCKING

SECTION D:
   D-1 = WALL PANEL TO PRE-ENGINEERED TRUSS SYSTEM WITH WOOD PLATES
   D-2 = WALL PANEL TO PRE-ENGINEERED TRUSS SYSTEM WITH METAL TRACK

SECTION E:
   E-1 = CEILING PANEL TO PRE-ENGINEERED TRUSS SYSTEM

SECTION F:
   F-1 = ROOF PANEL TO PRE-ENGINEERED TRUSS SYSTEM
   F-2 = ROOF PANEL TO PRE-ENGINEERED BEAM

SECTION G:
   G-1 = CORNER CONNECTION DETAIL
   G-2 = PANEL SHIPLAP DETAIL

SECTION H:
SECTION J:
   J-1 = TYPICAL ( 2 ) STORY SECTION WITH WOOD PLATES AND CMU FOUNDATION
   J-2 = TYPICAL ( 2 ) STORY SECTION WITH WOOD PLATES AND TURNED DOWN SLAB
           FOUNDATION
   J-3 = TYPICAL ( 1 ) STORY SECTION WITH WOOD PLATES AND CMU FOUNDATION
   J-4 = TYPICAL ( 1 ) STORY SECTION WITH METAL TRACK AND CMU FOUNDATION
   J-5 = TYPICAL ( 1 ) STORY SECTION WITH WOOD PLATES AND TURNED DOWN SLAB
           FOUNDATION
   J-6 = TYPICAL ( 1 ) STORY SECTION WITH METAL TRACK AND TURNED DOWN SLAB
           FOUNDATION
SECTION K:
- K-1 = TYPICAL METAL PROFILES (STANDARD STUD AND “LEADING EDGE” METAL)
- K-2 = TYPICAL METAL PROFILES (END “L” METAL AND ATTACHMENT PLATE)
- K-3 = TYPICAL METAL PROFILES (RIDGE CAP METAL AND HEAVY GAUGE STUD)
- K-4 = TYPICAL METAL PROFILES (METAL TRACK)

SECTION L:
- L-1 = #8, ½” SELF-TAPPING SCREW
- L-2 = 5” DECK SCREW
- L-3 = 7” DECK SCREW

SECTION M:
- M-1 = STANDARD WIRECHASE PLACEMENT IN A STAND ThermaSteel PANEL

SECTION N:
- N-1 = STANDARD WALL PANEL 16” O.C.
- N-2 = STANDARD WALL PANEL 24” O.C.
- N-3 = STANDARD WINDOW PANEL
- N-4 = STANDARD DOOR PANEL
- N-5 = STANDARD HEADER PANEL
- N-6 = STANDARD CONCRETE “T-BEAM” PANEL
SECTION A:

A-1 = METAL TRACK TO PANEL ATTACHMENT
A-2 = WOOD PLATE TO PANEL ATTACHMENT
RECOMMENDED TYPICAL ThermaSteel PANEL TO METAL TRACK CONNECTION

(SAME ATTACHMENT FOR TOP OF PANEL)
RECOMMENDED ThermaSteel PANEL TO WOOD PLATE CONNECTION

(SAME ATTACHMENT FOR TOP OF PANEL)
SECTION B

B-1= METAL TRACK TO SLAB WITH ANCHOR PINS

B-2= METAL TRACK TO SLAB WITH ANCHOR BOLTS

B-3= WOOD PLATE TO SLAB WITH ANCHOR BOLTS

B-4= METAL TRACK TO WOOD FLOOR SYSTEM ATTACHMENT

B-5= METAL TRACK TO WOOD FLOOR SYSTEM ATTACHMENT (PREFERRED)

B-6= WOOD PLATE TO WOOD FLOOR SYSTEM ATTACHMENT

B-7= METAL PLATE TO WOOD FLOOR SYSTEM ATTACHMENT (PREFERRED)

B-8= MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH METAL TRACK ATTACHMENT

B-9= MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH METAL TRACK ATTACHMENT (PREFERRED)

B-10= MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH WOOD PLATE ATTACHMENT

B-11= MULTI-STORY PANEL TO WOOD FLOOR SYSTEM WITH WOOD PLATE ATTACHMENT (PREFERRED)
**RECOMMENDED ThermaSteel PANEL TO CONCRETE SLAB CONNECTION**

(With anchor pins and metal track)
RECOMMENDED ThermaSteel PANEL TO CONCRETE SLAB CONNECTION

(WITH ANCHOR BOLT AND METAL TRACK)
RECOMMENDED ThermaSteel PANEL TO CONCRETE SLAB CONNECTION

(WITH ANCHOR BOLT AND WOOD PLATE)
**RECOMMENDED ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION**

( WITH METAL TRACK NAILED DOWN )
RECOMMENDED ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION

( WITH METAL TRACK NAILED DOWN AND ATTACHMENT PLATES TO FLOOR SYSTEM)
RECOMMENDED ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION

(WITH WOOD PLATE NAILED DOWN)
24 GA. METAL "C" STUD
MOLDED INTO PANEL
(3/4" X 3 1/2" X 3/4" TYPICAL)

ThermaSteel PANEL
(WIDTH PER SPEC.)

24 GA. END METAL
(3/4" X 2 1/4" TYPICAL)

(3) #8, 1/2" SELF-TAPPING
SCREWS THRU ATTACHMENT
PLATE INTO PANEL STUDS
(TYPICAL BOTH SIDES)

24 GA., 3" X 5"
ThermaSteel ATTACHMENT
PLATE (TYPICAL BOTH SIDES)

WOOD BOTTOM PLATE

SUB-FLOOR

FLOOR SYSTEM

16d NAILS THRU PLATE
INTO FLOOR SYSTEM
STAGGERED AT 16" – 24" O.C.
OR PER SPECS.

RECOMMENDED ThermaSteel PANEL TO
FLOOR SYSTEM CONNECTION

( WITH WOOD PLATE NAILED DOWN AND
ATTACHMENT PLATES TO FLOOR SYSTEM )
SECTION ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION
2 FLOORS AND ABOVE

( WITH METAL TRACK NAILED DOWN )
RECOMMENDED ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION
2 FLOORS AND ABOVE

WITH METAL TRACK NAILED DOWN

DRAWING B-9
RECOMMENDED ThermaSteel PANEL TO FLOOR SYSTEM CONNECTION

2 FLOORS AND ABOVE

( WITH WOOD PLATE NAILED DOWN AND ATTACHMENT PLATES TO FLOOR SYSTEM )
SECTION C

C-1= ROOF PANEL TO BEVELED WALL PANEL (METAL TRACK)

C-2= ROOF PANEL TO WALL PANEL WITH METAL TRACK AND SOLID BLOCKING

C-3= ROOF PANEL TO WALL PANEL WITH WOOD PLATE AND SOLID BLOCKING
RECOMMENDED ThermaSteel PANEL ROOF PANEL CONNECTION

( WITH TOP METAL TRACK ON PANEL MOLDED TO ROOF PITCH )
DECK SCREW WITH 1" MIN. Penetration thru panel studs into solid blocking and wood plate at top of wall panel

(1) Screw at each panel stud location or as specified by engineer

ThermaSteel ROOF PANEL (thickness as per specs.)

ThermaSteel PANEL (width per spec.)

24 ga. metal "C" stud molded into panel (3/4" x 3 1/2" x 3/4" typical)

SOLID WOOD BLOCKING

TOP METAL TRACK (gauge as per specs.)

24 ga. end metal (3/4" x 2 1/4" typical)

(2) #8, 1/2" self-tapping screws thru metal track @ each panel stud (typical both sides)

RECOMMENDED ThermaSteel PANEL ROOF PANEL CONNECTION

(with top metal track and solid wood blocking)
RECOMMENDED ThermaSteel PANEL ROOF PANEL CONNECTION

( WITH TOP PLATE AND SOLID WOOD BLOCKING )
SECTION D

D-1= WALL PANEL TO PRE-ENGINEERED TRUSS SYSTEM WITH WOOD PLATES

D-2= WALL PANEL TO PRE-ENGINEERED TRUSS SYSTEM WITH METAL TRACK
RECOMMENDED ThermaSteel PANEL TO PRE-ENGINEERED TRUSS CONNECTION

( WITH (2) TOP PLATES AND CLIPS AS SPECS. )
RECOMMENDED ThermaSteel PANEL TO PRE-ENGINEERED TRUSS CONNECTION

< WITH TOP METAL TRACK AND CLIPS AS SPECS. >
SECTION E

E-1= CEILING PANEL TO PRE-ENGINEERED TRUSS SYSTEM
RECOMMENDED ThermaSteel CEILING PANEL TO PRE-ENGINEERED TRUSS CONNECTION

(WHEN USING CEILING PANELS TO RAFTERS USE SAME PROCEDURE)
SECTION F

F-1 = ROOF PANEL TO PRE-ENGINEERED TRUSS SYSTEM

F-2 = ROOF PANEL TO PRE-ENGINEERED BEAM
RECOMMENDED ThermaSteel ROOF PANEL TO
PRE-ENGINEEREDE TRUSS CONNECTION

WHEN USING ROOF PANELS TO RAFTERS USE SAME PROCEDURE

DECK SCREW WITH 1" MIN. PENETRATION
THRU PANEL STUDS INTO SOLID BLOCKING
AND WOOD PLATE AT TOP OF WALL PANEL

ThermaSteel ROOF PANEL
(THICKNESS AS PER SPECS)

(1) SCREW AT EACH PANEL
STUD LOCATION OR AS
SPECIFIED BY ENGINEER

PRE-ENGINEERED TRUSS
RECOMMENDED ThermaSteel PANEL TO ROOF PANEL CONNECTION

(PANEL TO PRE-ENGINEERED BEAM)
SECTION G

G-1 = CORNER CONNECTION DETAIL

G-2 = PANEL SHIPLAP DETAIL
PLAN VIEW OF ThermaSteel PANEL
CORNER CONNECTION

#8, 1/2" SELF-TAPPING SCREWS
AT 16" O.C. (MAX) INTO PANEL STUD

NO LAP PANEL END

24 GA. METAL "C" STUD
MOLDED INTO PANEL
(3/4" X 3 1/2" X 3/4" TYPICAL)

ThermaSteel PANEL
(WIDTH PER SPEC.)

#8, 1/2" SELF-TAPPING SCREWS
AT 16" O.C. (MAX) INTO PANEL STUD

NO LAP PANEL END
PLAN VIEW OF ThermaSteel PANEL
SHIPLAP JOINT CONNECTION
SECTION H
SECTION J

J-1= TYPICAL (2) STORY SECTION WITH WOOD PLATES AND CMU FOUNDATION

J-2= TYPICAL (2) STORY SECTION WITH WOOD PLATES AND TURNED DOWN SLAB FOUNDATION

J-3= TYPICAL (1) STORY SECTION WITH WOOD PLATES AND CMU FOUNDATION

J-4= TYPICAL (1) STORY SECTION WITH METAL TRACK AND CMU FOUNDATION

J-5= TYPICAL (1) STORY SECTION WITH WOOD PLATES AND TURNED DOWN SLAB FOUNDATION

J-6 = TYPICAL (1) STORY SECTION WITH METAL TRACK AND TURNED DOWN SLAB FOUNDATION
2 STORY WALL SECTION
WITH CMU FOUNDATION

DRAWING J-1
2 STORY WALL SECTION
WITH TURNED DOWN SLAB

DRAWING J-2
ROOFING MATERIALS
TheraSteel PANEL
INTERIOR FINISH
WOOD OR FOAM FILL
INTERIOR WALL FINISH
CONC. SLAB
INSULATION
METAL TRACK AS REQUIRED
EXTERIOR WALL FINISH
TheraSteel PANEL
METAL TRACK AS REQUIRED
ANCHOR PER CODE
CMU
FOOTING PER CODE

1 STORY WALL SECTION
WITH CMU FOUNDATION

DRAWING J-4
SECTION K

K-1= TYPICAL METAL PROFILES (STANDARD STUD AND “LEADING EDGE” METAL)

K-2= TYPICAL METAL PROFILES (END “L” METAL AND ATTACHMENT PLATE)

K-3= TYPICAL METAL PROFILES (RIDGE CAP METAL AND HEAVY GAUGE STUD)

K-4= TYPICAL METAL PROFILES (METAL TRACK)
TYPICAL ThermaSteel "C" STUD PROFILE

(24 GAUGE, G-90)

TYPICAL ThermaSteel "LEADING EDGE" METAL PROFILE

(24 GAUGE, G-90)
TYPICAL ThermaSteel "END" METAL PROFILE

(24 GAUGE, G-90)

TYPICAL ThermaSteel "ATTACHMENT PLATE" PROFILE

24 GA. MINIMUM
TYPICAL ThermaSteel "RIDGE CAP" PROFILE

24 GA. MINIMUM

TYPICAL HEAVY GAUGE "C" STUD PROFILE

STUDS ARE SIZED AS PER ENGINEERING SPECS. FOR PROJECT
THIS PRODUCT IS NOT MANUFACTURED BY ThermaSteel
TYPICAL ThermaSteel "METAL TRACK" PROFILE

( * 24 GAUGE MINIMUM, G-90 )

* GAUGE OF METAL AND DEPTH OF LEGS ARE AS PER SPECIFICATIONS IF REQUIRED

DRAWING K-4
SECTION L

L-1 = #8, ½” SELF-TAPPING SCREWS

L-2 = 5” DECK SCREW

L-3 = 7” DECK SCREW
TYPICAL ThermaSteel ATTACHMENT SCREW
#8 X 1/2" (LASER CONSTRUCTION FASTENERS # 00311230320200 OR EQUAL)
TYPICAL ThermaSteel 5" DECK SCREW
MULE-HIDE DRILL POINT OR EQUIVALENT
TYPICAL ThermaSteel 7" DECK SCREW
MULE-HIDE DRILL POINT OR EQUIVALENT

DRAWING L-3
SECTION M

M-1 = STANDARD WIRECHASE PLACEMENT IN A STAND ThermaSteel PANEL
TYPICAL WIRECHASE LOCATIONS

PANEL AS VIEWED FROM INSIDE THE STRUCTURE
SECTION N

N-1= STANDARD WALL PANEL 16” O.C.
N-2= STANDARD WALL PANEL 24” O.C.
N-3= STANDARD WINDOW PANEL
N-4= STANDARD DOOR PANEL
N-5= STANDARD HEADER PANEL
N-6= STANDARD CONCRETE “T-BEAM” PANEL
24 GA. END METAL  TOP & BOTTOM (TYPICAL)
(3/4" x 2 1/4" x PANEL WIDTH)

PANEL SHIP LAP

24 GA. LEADING EDGE METAL
(3/4" x 4 1/4" x PANEL LENGTH)

24 GA. "C" CHANNEL (TYPICAL)
(3/4" x 3 1/2" x PANEL LENGTH)

MODIFIED EPS
(EXPANDED POLYSTYRENE)

HORIZONTAL WIRECHASE
(OPTIONAL)

144" (MAX)
(3658 MM MAX)

12" (TYP)

48" (MAX)
(1220 MM MAX)

3 1/2" (89)

3 1/2" (89)

5 1/2" (140)

5 1/2" (140)

7 1/2" (191)

7 1/2" (191)

NO LAP LEFT
(NLL)

Panel Sections

NO LAP RIGHT
(NLR)
24 GA. END METAL TOP & BOTTOM (TYPICAL)  
(3/4" x 2 1/4" x PANEL WIDTH)  
PANEL SHIP LAP  
24 GA. LEADING EDGE METAL  
(3/4" x 4 1/4" x PANEL LENGTH)  
24 GA. "C" CHANNEL (TYPICAL)  
(3/4" x 3 1/2" x PANEL LENGTH)  
MODIFIED EPS  
(EXPANDED POLYSTYRENE)  
HORIZONTAL WIRECHASE  
(OPTIONAL)  

DRAWING N-2  

PANEL ELEVATION  

NO LAP LEFT  
(NLL)  

NO LAP RIGHT  
(NLR)  

THERMASTEEL CORPORATION  
www.thermasteelcorp.com
**FIG. 1 - FPB - 1 & RPB - 1**

5 1/2" THICK ThermoSteel CONCRETE T-BEAM PANEL

* 2X THE BAR DIAMETER ABOVE BOTTOM OF POCKET

**FIG. 2 - FPB - 2 & RPB - 2**

7 1/2" THICK ThermoSteel CONCRETE T-BEAM PANEL

* 2X THE BAR DIAMETER ABOVE BOTTOM OF POCKET

**FIG. 3 - FPB - 3**

7 1/2" THICK ThermoSteel CONCRETE T-BEAM PANEL

* 2X THE BAR DIAMETER ABOVE BOTTOM OF POCKET
FIG. 4 - RPB - 3 & FPB - 4

* 2X THE BAR DIAMETER
ABOVE BOTTOM OF POCKET

FIG. 5 - RPB - 4 & FPB - 5

* 2X THE BAR DIAMETER
ABOVE BOTTOM OF POCKET
## STRUCTURAL ANALYSIS
### FOR ROOF PANEL ThermaSteel T - BEAM

<table>
<thead>
<tr>
<th>TYPE OF ROOF PANELLING</th>
<th>SPAN (FT)</th>
<th>RESISTING MOMENT (FT-LBS)</th>
<th>REINFORCING BARS (BOTTOM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPB - 1 (SEE FIG. 1)</td>
<td>10</td>
<td>2750</td>
<td>2 - # 4</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>3960</td>
<td>2 - # 4</td>
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<tr>
<td></td>
<td>14</td>
<td>5400</td>
<td>2 - # 4</td>
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<tr>
<td>RPB - 2 (SEE FIG. 2)</td>
<td>16</td>
<td>7040</td>
<td>2 - # 5</td>
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<td></td>
<td>18</td>
<td>9850</td>
<td>2 - # 5</td>
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<td>20</td>
<td>12150</td>
<td>2 - # 6</td>
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<tr>
<td>RPB - 3 (SEE FIG. 4)</td>
<td>22</td>
<td>16100</td>
<td>2 - # 6</td>
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<td></td>
<td>24</td>
<td>19160</td>
<td>2 - # 6</td>
</tr>
<tr>
<td>RPB - 4 (SEE FIG. 5)</td>
<td>26</td>
<td>24420</td>
<td>2 - # 6</td>
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<td>2 - # 7</td>
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<td>30</td>
<td>32520</td>
<td>2 - # 7</td>
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## STRUCTURAL ANALYSIS
### FOR FLOOR PANEL ThermaSteel T - BEAM

<table>
<thead>
<tr>
<th>TYPE OF FLOOR PANELLING</th>
<th>SPAN (FT)</th>
<th>RESISTING MOMENT (FT-LBS)</th>
<th>REINFORCING BARS (BOTTOM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPB - 1 (SEE FIG. 1)</td>
<td>10</td>
<td>3670</td>
<td>2 - # 4</td>
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<tr>
<td></td>
<td>12</td>
<td>5290</td>
<td>2 - # 5</td>
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<tr>
<td>FPB - 2 (SEE FIG. 2)</td>
<td>14</td>
<td>7840</td>
<td>2 - # 5</td>
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<td>16</td>
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<td>18</td>
<td>12960</td>
<td>2 - # 6</td>
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<tr>
<td>FPB - 3 (SEE FIG. 3)</td>
<td>20</td>
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<td>2 - # 6</td>
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<tr>
<td>FPB - 4 (SEE FIG. 4)</td>
<td>22</td>
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<td>2 - # 6</td>
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<tr>
<td>FPB - 5 (SEE FIG. 5)</td>
<td>24</td>
<td>26650</td>
<td>2 - # 6</td>
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